

ABSTRACT

The separator subassembly includes a spacer layer formed from a film of microporous, non-conductive material joined to a separator by a heating process, wherein the separator is formed from an elongated piece of microporous, non-conductive film. When an anode subassembly is enveloped within the separator subassembly, the spacer aligns with a surface-mounted anode current collector of the alkali metal anode. The spacer serves as an additional protective layer between the cathode material and the anode current collector as the anode depletes.